

METHOD AND APPARATUS FOR REDUCING NOISE IN ANALOG-TO-DIGITAL CONVERTER DEVICES

ABSTRACT OF THE DISCLOSURE

An analog-to-digital converter apparatus has a plurality of stages. Each stage includes a residue amplifier having a first and second amplifier unit. Each of the amplifier units has a first input locus, a second input locus and an output locus. The amplifier units cooperate in receiving a differential input data signal at the first input loci.

- 5 A DC level setting signal unit is coupled with the second input loci and provides a DC level setting current in a first current direction. A counter-current signal generating unit is coupled with the second input loci via a single coupling locus common with the second input loci and provides a control current signal to the second input loci in a second current direction opposite to the first current direction. The control current signal
- 10 provides a DC level control for each of the amplifier units.